REMARKS

Claims 1, 3-10, 12-25 and 27-29 were examined by the Office, and in the final Office Action of February 06, 2009 all claims are rejected. With this response claims 1, 3-10, 12, 16, 20, 22-25 and 27-28 are amended. The claims are amended to further clarify how the video sequence identification is arranged to be used. Application respectfully submits that no new matter is added. Applicant respectfully requests reconsideration and withdrawal of the rejections in view of the following discussion.

This response is submitted along with a Request for Continued Examination (RCE).

Claim Rejections Under § 102

In section 4, on page 2 of the Office Action, claims 1-16 and 20-29 are rejected under 35 U.S.C. § 102(b) as anticipated by Setogawa et al. (U.S. Patent No. 5,822,024). Applicant respectfully submits that claim 1 is not disclosed or suggested by Setogawa, because Setogawa fails to disclose or suggest all of the limitations recited in claim 1. Setogawa at least fails to disclose or suggest that the video sequence identification is arranged to be used for determining which pictures belong to the same group of pictures, as recited in claim 1. This is because there is no element in Setogawa that could be used for such purpose. Therefore, for at least this reason, claim 1 is not disclosed or suggested by Setogawa.

In section 2, on page 2 of the Office Action, the Office asserts that the "closed GOP" is the indication, not the "GOP start code". The "closed GOP" flag in Setogawa is a one-bit flag for indicating a closed GOP. Such a one-bit field cannot be used for identifying a video sequence, since such a field can have only two possible values (0 or 1), and if two consecutive GOPs are both closed GOPs, they both have the same value of the "closed GOP" field, and it thus cannot be used to identify which pictures belong to the same group of pictures, as recited in claim 1. The applicant has previously argued that the "start code" in the GOP header cannot be used to identify which pictures belong to the same group of pictures. This is because it is known in the field of video coding that a GOP start code is a fixed code to indicate a start of a GOP. It therefore lacks the ability to vary and cannot be used to identify which pictures belong to which GOP. Accordingly, the applicant respectfully submits that the Office has not shown any element from Setogawa that could be used to identify which pictures belong to which group of pictures.

Setogawa is related to a method and apparatus for coding a picture sequence, whereby the sequence may comprise I-pictures, P-pictures and B-pictures accommodated as groups of pictures (GOPs). In particular, Setogawa discloses a method of coding groups of pictures whereby the pictures within each group are independent from pictures contained within other GOPs. For example, each picture contained within a GOP relies solely on other pictures within the same GOP for prediction thereof. This allows scenes to be cut from the encoded stream at the granularity of a GOP, and the effect of the cut pictures is not propagated into the next proceeding GOP. In order to achieve this effect the method disclosed by Setogawa comprises replacing the picture immediately following a cut scene with that of an I-picture.

In contrast to Setogawa, claim 1 recites that each at least one group of pictures comprises a video sequence identification separate from the picture identification for the encoded pictures, the video sequence identification has the same value for each picture of the same group of pictures, and the video sequence identification is arranged to be used for determining which pictures belong to the same group of pictures. The Office asserts that Figures 6A to 6C of Setogawa disclose the feature of claim 1 regarding "the video sequence identification is arranged to be used for determining which pictures belong to the same group of pictures." Figures 6A to 6C show the configuration of a bit stream on the MPEG standard, the configuration of a GOP, and the contents of the GOP header and picture header. However, the GOP header, including the GROUP START CODE and CLOSED GOP, does not correspond to the video sequence identification recited in claim 1. These fields cannot be used for identifying which pictures belong to which GOP.

The GROUP START CODE is known in video coding to be a fixed predetermined 32 bit number for all groups, and is used as a marker in order to signify the start of a new GOP. This value cannot therefore be used to determine which pictures belong to the same group of pictures, as is performed by the video sequence identification value from claim 1, since the GROUP START CODE lacks the ability to vary from one group of pictures to the next. Instead, the GROUP START CODE would identify every picture as being part of every group of pictures. Therefore, the GROUP START CODE and the GOP heading cannot correspond to the video sequence identification recited in claim 1.

The CLOSED GOP in the GOP header of Setogawa is a one-bit flag (see Fig. 6B) that is used to indicate a closed GOP. This flag cannot be used to differentiate between two successive closed GOPs, since they would have the same value of the CLOSED GOP flag. This CLOSED GOP value cannot therefore be used to determine which pictures belong to the same group of pictures, as is performed by the video sequence identification value from claim 1. Therefore, the CLOSED GOP and the GOP heading cannot correspond to the video sequence identification recited in claim 1.

By using the video sequence identification separate from the picture identification there is no requirement to maintain a check on the picture stream to detect when a specific GOP begins, as the sequence identification is able to identify which picture belongs to the same group of pictures. The disclosure of Setogawa does not provide for this advantage of the present invention.

In addition, the Office asserts that the Sequence Layer shown in Figure 6A of Setogawa discloses that the video sequence identification is arranged to be used for determining which pictures belong to the same group of pictures, as recited in claim 1. See Setogawa column 6, lines 46-52 and column 7, lines 38-40. However, the applicant respectfully submits that the Sequence Layer does not teach this feature of claim 1. Instead, Setogawa discloses a Sequence Layer comprising a series of GOPs that are demarked by a Sequence Header and Sequence End. Setogawa states the sequence layer is the uppermost layer and includes a series of a plurality of GOPs. See Setogawa column 7, lines 38-40. Therefore, the Sequence Layer in Setogawa is used to group a series of GOPs and not a series of pictures within the same group, as recited in claim 1. For at least the reasons discussed above, claim 1 is not disclosed or suggested by the cited references.

Independent claims 6, 8-10, 12, 16, 20, 22-25 and 27-28 contain limitations similar to claim 1, and therefore for at least for the reasons discussed above in relation to claim 1, these independent claims are not disclosed or suggested by Setogawa.

Furthermore, independent claims 12, 16, 20, 22-25 and 27-28 contain limitations of a first video sequence identification in a first transmission unit formed on the basis of a first encoded picture and a second video sequence identification in a second transmission unit formed on the basis of a second encoded picture, and a limitation that the first and second video sequence

identifications have the same value when the first and second picture belong to the same group of pictures. Setogawa does not disclose such an arrangement of the first and second transmission unit having a video sequence identification.

The claims depending from the independent claims listed above are also not disclosed or suggested by Setogawa at least in view of their dependencies.

Claim Rejections Under § 103

In section 7, on page 8 of the Office Action, claims 17 and 19 are rejected under 35 U.S.C. § 103(a) as unpatentable over Setogawa in view of Bigham et al. (U.S. Patent No. 5,677,905). Claims 17 and 19 ultimately depend from independent claim 16, and Bigham fails to make up for the deficiencies in the teachings of Setogawa identified above. Therefore, claims 17 and 19 are not disclosed or suggested by the cited references at least in view of their dependencies.

In section 8, on page 9 of the Office Action, claim 18 is rejected under 35 U.S.C. § 103(a) as unpatentable over Setogawa in view of Watkins (U.S. Publ. Appl. No. 2004/0039796). Claim 18 ultimately depends from independent claim 16, and Watkins fails to make up for the deficiencies in the teachings of Setogawa identified above. Therefore, claim 18 is not disclosed or suggested by the cited references at least in view of its dependency.

Conclusion

In view of the foregoing, it is respectfully submitted that the present application is in condition for allowance and such action is earnestly solicited. The undersigned hereby authorizes the Commissioner to charge Deposit Account No. 23-0442 for any fee deficiency required to submit this response.

Respectfully submitted,

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